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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/757,013

01/08/2001

Jean M. Beaupre

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7590

06/21/2006

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EXAMINER

ALI, SHUMAYA B

ART UNIT

PAPER NUMBER

3743

DATE MAILED: 06/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/757,013

Applicant(s)

BEAUPRE, JEAN M.

Examiner

Shumaya B. Ali

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3743

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 03 April 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1,2,4-13 and 15-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-13,15-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☒ Other: detailed action.

***Response to Arguments***

Applicant's arguments with respect to claims 1-2,4-13,15-22 have been considered but are moot in view of the new ground(s) of rejection.

**DETAILED ACTION**

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 1-2,4-13,15-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hood in US Patent No. 5,935,143 and Alexander in US Patent No. 2,784,751 and in view of Okada et al. US Patent No. 6,887,252 B1.**

Hood teach a blade that is an ultrasonic waveguide (26) inherently having a distal end and a proximal end for transferring ultrasonic acoustic energy along a longitudinal axis of the ultrasonic waveguide, as recited in column 5, lines 55-67, an ultrasonic waveguide in an ultrasonic surgical instrument having an active tip end-effector which is placed in contact with tissue of a patient to couple ultrasonic energy transferred along the laminated ultrasonic waveguide to the tissue, as recited in column 2, and a connector (54) at a proximal end of the ultrasonic waveguide to transfer ultrasonic energy to the laminated ultrasonic waveguide, as recited in columns 8 and 9 and seen in figures 9-11.

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However, Hood does not explicitly recite a laminated ultrasonic waveguide having at least two stamped pieces of sheet stock which are laminated together to form a laminated ultrasonic waveguide; at least two of the stamped pieces of sheet stock are stamped to form at least one channel extending along the length of the blade; a first outer, second inner and third outer stamped pieces of sheet stock which are laminated together; first and third outer laminated pieces of sheet stock that extend for a portion of the length of the blade and the second inner laminated piece of sheet stock extends for at least a portion of the length of the blade; first and second stamped half pieces of sheet stock which are laminated together, wherein each of the stamped first and second half pieces of sheet stock defines half of a cylindrical connector at a proximal end of the laminated ultrasonic waveguide', threads stamped into an interior surface of each half cylindrical connector, such that the first and second half pieces define a cylindrical connector having threads on the interior surface thereof for providing a threaded connector to the laminated ultrasonic waveguide, a distal portion of each of the stamped pieces of sheet stock has a longitudinal rib stamped therein extending along the longitudinal axis of the laminated ultrasonic waveguide to provide lateral stiffness for the laminated ultrasonic waveguide, a second inner laminated piece of sheet stock that extend to a distal active tip end of the laminated ultrasonic waveguide; a second inner laminated piece forms an end-effector at the distal end of the ultrasonic laminated waveguide', a piece of sheet stock that is mounted and secured to longitudinally extending slots in an outer circumference of a separate threaded connector', or a method of fabricating a laminated blade via stamping and forming at least two stamped pieces of sheet stock to form pads of the body and laminating together the at least two stamped pieces of sheet stock to form the body of the blade.

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On the other hand, Alexander teach a laminated blade having at least two stamped pieces of sheet stock (20 and 21) which are laminated together to form a laminated blade, as recited in column 2, lines 14-50 and seen in figures 2 and 4., at least two of the stamped pieces of sheet stock are stamped to form at least one channel (24) extending along the length of the blade; a first outer, second inner and third outer stamped pieces (20 and 21) of sheet stock which are laminated together, first and third outer Laminated pieces of sheet stock that extend for a portion of the Length of the blade and the second inner laminated piece of sheet stock extends for at least a portion of the length of the blade, as seen in figure 2, and a method of fabricating a laminated blade via stamping and forming at least two stamped pieces of sheet stock to form parts of the body and Laminating together the at least two stamped pieces of sheet stock to form the body of the blade, as recited in column 2, lines 14-50.

Therefore, it would be obvious to one with ordinary skill in the art to modify the invention of Hood to include an ultrasonic waveguide having at least two stamped pieces of sheet stock which are Laminated together to form a Laminated ultrasonic waveguide where at least two of the stamped pieces of sheet stock are stamped to form at least one channel extending along the Length of the blade', a first outer, second inner and third outer stamped pieces of sheet stock which are Laminated together', and first and third outer laminated pieces of sheet stock that extend for a portion of the Length of the blade and the second inner Laminated piece of sheet stock extends for at least a portion of the length of the blade, as taught by Alexander, for the purpose of ease of manufacture and reduction in cost, as recited in column 1, lines 25-30 of Alexander. The blade of Alexander is for a reciprocating saw where vibrations are expected.

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Therefore, it is within the scope of the invention to incorporate the teachings for a blade in an ultrasonic waveguide. Further, this modification would yield first and second stamped half pieces of sheet stock which are laminated together, wherein each of the stamped first and second half pieces of sheet stock defines half of a cylindrical connector at a proximal end of the laminated ultrasonic waveguide to be incorporated in the connector of Hood', and threads stamped into an interior surface of each half cylindrical connector, such that the first and second half pieces define a cylindrical connector having threads on the interior surface thereof for providing a threaded connector to the Laminated ultrasonic waveguide.

Moreover, it would be obvious to include at a distal portion of each of the stamped pieces of sheet stock, a longitudinal rib stamped therein extending along the longitudinal axis of the laminated ultrasonic waveguide to provide lateral stiffness for the laminated ultrasonic waveguide since the modification to the ultrasonic waveguide would necessarily require more stability. Also, a piece of sheet stock that is mounted and secured to longitudinally extending slots in an outer circumference of a separate threaded connector and the method of fabricating a laminated blade via stamping and forming at least two stamped pieces of sheet stock to form pads of the body and laminating together the at least two stamped pieces of sheet stock to form the body of the blade also fall within the scope of the invention and would be obvious to one with ordinary skill in the art.

Hood additionally does not disclose "at least one lumen extending from the distal end to the proximal end. Okada et al. however teaches an ultrasonic treatment appliance with at least one lumen (figure 28, 124) extending from the proximal to the distal end of the appliance to propagate higher frequency of current (see col.19 lines 58-60). Therefore, it would have been

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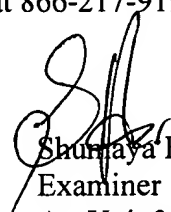
obvious to one of ordinary skills in the art to include a lumen extending from the proximal to the distal end of the waveguide of Hood as modified by Alexander et al and in further view of Okada et al. for the purposes of propagating higher frequency of current.

### *Conclusion*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shumaya B. Ali whose telephone number is 571-272-6088. The examiner can normally be reached on M-F 8:30-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Henry Bennett can be reached on 571-272-4791. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

 6/14/06  
Shumaya B Ali  
Examiner  
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